

P **Astragalus membranaceus**

Common Name(s)

Huang Qi, Huang-Chi

How Used

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	Chemical Plant Part	Low PPM	High PPM	StdDev	Reference	Citation
0	(3R)-(-)-7,2'-DIHYDROXY-3',4'-DIMETHYLISOFLAVAN7-O-BETA-D-GLUCOPYR...	Plant	--	--		
0	2',3'-DIHYDROXY-7,4'-DIMETHOXYISOFLAVONE	Root	--	--	Chemical Constituents of Oriental Herbs (3 diff. books)	
0	2'-HYDROXY-3',4'-DIMETHOXY-ISOFLAVONE-7-O-BETA-D-GLUCOSIDE	Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.	
0	3'-HYDROXYFORMONONETIN	Root	--	--	Chemical Constituents of Oriental Herbs (3 diff. books)	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	3-O_BETA-DXYLOPYRANOSYL-25-O-BETA-D-GLUCOPYRANOSYL-CYCLOASTRAGENOL	Plant	--	--		
0	6AR,11AR-10-HYDROXY-3,9-DIMETHOXYPTEROCARPAN		Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	7,3'-DIHYDROXY-9,10-DIMETHOXYPTEROCARPANE		Root	--	--	Chemical Constituents of Oriental Herbs (3 diff. books)
0	9,10-DIMETHOXYPTEROCARPAN-3-O-BETA-D-GLUCOSIDE		Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ACETYL-ASTRAGALOSIDE-I		Root	--	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev Reference	Citation
3	ALANINE		Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
14	ARGININE		Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
112	ASCORBIC-ACID		Root --	--	
0	ASH	Root 12800	80000	0.35526479427075014	
2	ASPARAGINE		Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
3	ASPARTIC-ACID			Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ASTRAGALOSIDE-I			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)
0	ASTRAGALOSIDE-II			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)
0	ASTRAGALOSIDE-III			Root --	--	
0	ASTRAGALOSIDE-IV			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)
0	ASTRAGALOSIDE-V			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)
0	ASTRAGALOSIDE-VI			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	ASTRAGALOSIDE-VII			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)
0	ASTRAGALUS-SAPONIN-I			Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ASTRAGALUS-SAPONIN-II			Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ASTRAGALUS-SAPONIN-III			Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ASTRAISOFLAVAN			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	ASTRAMEMBRANAGENIN			Plant --	--	J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
3	ASTRAMEMBRANIN-I			Plant --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ASTRAMEMBRANIN-II			Plant --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ASTRAPTEROCARPAN			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)
0	ASTRASIEVERSIANIN-I-XVI			Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
53	BETA-CAROTENE	Root	--	--		
47	BETA-SITOSTEROL	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
14	BETAINE	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
102	CAFFEIC-ACID	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
28	CALCIUM	Root	560	3500	-0.42742749848868644	
0	CALYCOSIN	Root	--	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
14	CANAVANINE		Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
77	CHLOROGENIC-ACID		Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
20	CHOLINE		Root --	--		Chemical Constituents of Oriental Herbs (3 diff. books)
24	CHROMIUM		Root 0.3	0.8	-0.40048877739295385	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	COBALT		Root 0.4	2.5	-0.4909460027790993	
12	COPPER		Root 1	9	-0.30116857246091955	

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
57	COUMARIN		Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	CYCLOGALEGINOSIDE-A		Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	CYCLOGALEGINOSIDE-B		Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	D-FRUCTOSE		Root --	--		Chemical Constituents of Oriental Herbs (3 diff. books)
1	D-GLUCOSE		Root --	--		Chemical Constituents of Oriental Herbs (3 diff. books)

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
0	FAT	Root	3200	20000	-0.09603792277020924	
61	FERULIC-ACID	Root	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	FIBER(CRUDE)	Root	--	200000	2.6242208163218135	
0	FIBER(DIETARY)	Root	--	600000	2.2013712801434733	
23	FOLIC-ACID	Root	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
16	FORMONONETIN	Root	--	--		
0	FREE-AMINO-ACIDS	Root	5000	12600	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
22	GABA	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
8	GLUTAMIC-ACID	Root	--	--	Leung, A. Y. and Foster, S.	1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	GUM	Root	16000	100000	-0.2627053187642807	
6	IRON	Root	3.2	20	-0.4125973953033244	
0	ISOASTRAGALOSIDE-I	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	ISOASTRAGALOSIDE-II	Root	--	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	ISOASTRAGALOSIDE-IV	Root	--	--		

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
4	ISOFERULIC-ACID			Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
28	ISOLIQUIRITIGENIN			Root --	--	Chemical Constituents of Oriental Herbs (3 diff. books)
11	ISORHAMNETIN			Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
75	KAEMPFEROL			Root --	--	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	KUMATAKENIN		Root 11	13		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	L-3-HYDROXY-9-METHOXYPTEROCARPAN		Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
27	LINOLEIC-ACID		Root --	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	LINOLENIC-ACID		Root --	--		Chemical Constituents of Oriental Herbs (3 diff. books)
65	MAGNESIUM		Root 800	5000	1.297512854456367	
14	MANGANESE		Root --	--		

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
2	MOLYBDENUM	Root 0.1	10	2.6325714919134473	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York.	649 pp.
39	NIACIN	Root --	--			
4	PHOSPHORUS	Root 104	650	-0.5038891291778125		
14	POTASSIUM	Root 1280	8000	-0.5695891878357887		
0	PROLINE	Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York.	649 pp.
0	PROTEIN	Root 14400	90000	-0.3190660925574092		
176	QUERCETIN	Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York.	649 pp.

Chemical Plant Part		Low PPM	High PPM	StdDev	Reference	Citation
7	RHAMNOCITRIN		Root --	--		Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
15	RIBOFLAVIN		Root 0.4	2.5	-0.3445770066726076	
0	RUBIDIUM		Root 11	13	0	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
60	SELENIUM		Root 0.2	1	-0.29131634494743897	
4	SILICON		Root 3.2	20	-0.2510309186692663	
1	SODIUM		Root 64	400	-0.32652648701580106	
0	SOYASAPONIN-I		Root --	--		Chemical Constituents of Oriental Herbs (3 diff. books)
14	SUCROSE		Root --	--		Chemical Constituents of Oriental Herbs (3 diff. books)
0	THIAMINE		Root 0.3	2	-0.46176774546761545	

Chemical Plant Part		Low	High	StdDev	Reference	Citation
		PPM	PPM			
0	WATER		Root --	840000	0.4631102003256906	
77	ZINC		Root 0.8	5	-0.8399576796962069	